

Abstract

Method and device for producing nitrogen fertilizer from organic waste products.

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The invention relates to a method and a device for producing nitrogen fertilizer from organic waste products in the liquid phase (suspension, emulsion, solution) and for hygienizing the wastes or reducing the emissions by thermal treatment using mineral or organic additions.

According to the invention, this is achieved by a method, wherein the waste product is heated at underpressure to temperatures between 40 and 90 °C, the escaping gas containing carbon dioxide and ammonia is cooled down and introduced into an aqueous absorption agent, the nitrogen fertilizer formed thereby is discharged and the excess gas not having been absorbed and containing carbon dioxide is pumped back into the discharge container, wherein the underpressure generated at the beginning of the process by a vacuum pump is autogenously maintained by the progress of the process.

Suitably, the return of the excess gas into the cycle is performed by either conducting it immediately above the waste product to be treated, or through a gas cooling system above the waste product to be treated, or dividing it and conducting a partial flow through the waste product and another partial flow above the waste product.

Preferably, a gypsum suspension is used as an aqueous absorption agent.